STATE OF ARIZONA
AQUIFER PROTECTION PERMIT NO. P-105324
PLACE ID 18583, LTF 37771
SIGNIFICANT AMENDMENT

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A.A.C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Johnson Utilities, L.L.C. is hereby authorized to operate the Pecan Water Reclamation Plant located at 38539 North Gantzel Road, approximately 1/2 mile north of Combs Road southeast of Queen Creek, Pinal County, Arizona, over groundwater of the Phoenix Active Management Area (AMA) in Township 2 S, Range 8 E, Section 29, NW 1/4, of the Gila and Salt River Base Line and Meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods) unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
2. Such that Aquifer Water Quality Standards (AWQS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name:	Pecan Water Reclamation Plant (WRP)
Facility Address:	38539 N. Gantzel Road (≈ ½ mile north of Combs Rd., southeast of Queen Creek) Pinal County
Permittee:	Johnson Utilities, L.L.C.
Permittee Address:	5230 E. Shea Blvd. Phoenix, Arizona 85254
Facility Contact:	Brian Thompsett, P.E., Johnson Utilities, L.L.C.
Emergency Phone No.:	(480) 987-9870
Latitude/Longitude:	33E13' 43" N/ 111E33' 46" W
Legal Description:	Township 02S, Range 8E, Section 29, $NW_{1/4}$, $SW_{1/4}$, $SW_{1/4}$ of the Gila and Salt River Baseline and Meridian

1.2 AUTHORIZING SIGNATURE

_____

Joan Card, Director
Water Quality Division
Arizona Department of Environmental Quality

Signed this _____ ,day of _____ , 2007

THIS AMENDMENT SUPERCEDES TEXT IN ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS [A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description [A.R.S. § 49-243(K)(8)]

The Pecan Water Reclamation Plant (WRP) has the capacity to collect and treat a maximum average monthly flow of 4.0 million gallons per day (MGD). The WRP will be constructed in four phases. Each phase is designed to treat 1.0 MGD. The 4.0 MGD of raw wastewater enters the influent lift station, and is pumped to the headworks with barscreen, where it is diverted to each of the four treatment trains. Each treatment train process consists of extended aeration with nitrification-denitrification, clarifiers, filters, ultraviolet (UV) disinfection, sludge digesters, sludge dewatering belt filter press, and an effluent pump station. Chlorine disinfection may also be used as a back-up. All the WRP units are constructed of either reinforced concrete or steel. All the odor and noise producing units which include the influent pump station, headworks, the extended aeration process including the blower room, and the sludge dewatering belt filter press are enclosed inside a metal building with odor control scrubbers installed on all vents. The entire WRP is surrounded by an aesthetic, 6 foot tall, chain link or concrete block wall, fence. Effluent will be disposed via reuse and effluent disposal to the subsurface using a combination of a subsurface leach disposal facility, vadose zone recharge wells, and aquifer injection recharge wells. No discharge to the recharge basins is permitted under this permit. The sludge, including the screenings, grit, and scum, is hauled off site for disposal at a landfill. Depth to groundwater at the WRP site is approximately 377 feet and the direction of groundwater flow is to the northwest.

The WRP will produce reclaimed water meeting Class A+ Reclaimed Water Standards (A.A.C. R18-11, Article 3) and may be delivered for beneficial use under a valid reclaimed water permit under A.A.C. R18-9 Article 7.

All industrial hookups and other non-residential hookups to the treatment system shall conform to Section 307 of the Federal Water Pollution Control Act and shall be authorized according to the federal pretreatment program, or as otherwise approved by federal, state or local regulations.

The site includes the following permitted discharging facilities:

Well ID	Descriptive Location	Latitude[1]	Longitude[1]
POC # 1[2]	northwest corner of the WRP site	33°13’49.585” N	111°33’46.160” W
~~POC #2~~[3]	on-site production well 55-599386	33°13’49.829” N	111°33’42.954” W
POC #2[4]	downstream of AZPDES outfall for the subsurface recharge facility	33°13’51.059” N	111°33’46.121” W
Aquifer Injection Well #1	NE corner of Pecan Orchard	33°13’49.993” N	111°33’38.902” W
Aquifer InjectionWell #2	SE corner of Pecan Orchard	33°13’43.316” N	111°33’38.998” W
Aquifer InjectionWell #3	SW corner of Pecan Orchard	33°13’43.316” N	111°33’38.835” W
Aquifer InjectionWell #4	~400’ West of the NW corner of WRP site	33°13’49.141” N	111°33’50.706” W
Vadose Zone Recharge Well #1	~50’ east of Phase II WRP	33°13’47.365” N	111°33’42.451” W
WRP	Center of WRP	33°13'48.198"N	111°33'44.630"W
AZPDES Outfall	AZPDES Outfall	33°13’51.106” N	111°33’42.686” W

[1] Estimated locations; actual location required to be identified upon installation.
[2] Monitor well required to be installed as contingency action only.
[3] Conversion of existing on-site well to monitor well required by 6/1/05 Significant Amendment. However, well has not been converted and is no longer proposed to be listed as POC in the current amendment.
[4] Monitor well required to be installed within 30 days of permit issuance.

Well ID	Descriptive Location	Latitude[1]	Longitude[1]
Vadose Zone Recharge Well #2	~50 east of Phase IV WRP	33°13'48.750" N	111°33'42.451" W
Vadose Zone Recharge Well #3	~100' east of the NE corner of their along the northern boundary of the Pecan Orchard	33°13'49.829" N	111°33'41.458" W
Vadose Zone Recharge Well #4	~200' east of the NE corner of their along the northern boundary of the Pecan Orchard	33°13'49.904" N	111°33'40.201" W
Vadose Zone Recharge Well #5	~150' south of the NE corner of the Pecan Orchard along the eastern boundary of the Orchard	33°13'48.750" N	111°33'38.998" W
Vadose Zone Recharge Well #6	~300' south of the NE corner of the Pecan Orchard along the eastern boundary of the Orchard	33°13'47.365" N	111°33'38.998" W
Vadose Zone Recharge Well #7	~450' south of the NE corner of the Pecan Orchard along the eastern boundary of the Orchard	33°13'45.980" N	111°33'38.998" W
Vadose Zone Recharge Well #8	~600' south of the NE corner of the Pecan Orchard along the eastern boundary of the Orchard	33°13'44.559" N	111°33'38.998" W
Vadose Zone Recharge Well #9	~150' west of the SE corner of the Pecan Orchard along the southern boundary of the Orchard	33°13'43.316" N	111°33'40.087" W
Vadose Zone Recharge Well #10	~300' west of the SE corner of the Pecan Orchard along the southern boundary of the Orchard	33°13'43.316" N	111°33'41.512" W
Vadose Zone Recharge Well #11	~450' west of the SE corner of the Pecan Orchard along the southern boundary of the Orchard	33°13'43.316" N	111°33'43.146" W
Vadose Zone Recharge Well #12	~600' west of the SE corner of the Pecan Orchard along the southern boundary of the Orchard	33°13'43.316" N	111°33'44.571" W
BADCT Observation Well 1A	in Queen Creek; ~150' north of the NE corner of the WRP site; downstream end of Phase I disposal field.	33°13'54.546" N	111°33'38.835" W
BADCT Observation Well 1B		33°13'54.348" N	111°33'38.821" W
BADCT Observation Well 1C		33°13'54.151" N	111°33'38.806" W
BADCT Observation Well 1D		33°13'53.953" N	111°33'38.792" W
BADCT Observation Well 1E		33°13'53.756" N	111°33'38.777" W
BADCT Observation Well 1F		33°13'53.558" N	111°33'38.763" W
BADCT Observation Well 2	~0.25 miles east of BADCT Observation Well 1	33°13'55.232" N	111°33'25.831" W

Well ID	Descriptive Location	Latitude[1]	Longitude[1]
BADCT Observation Well 3	~0.25 miles east of BADCT Observation Well 2	33°13'56.578" N	111°33'12.916" W
BADCT Observation Well 4	~0.25 miles east of BADCT Observation Well 3	33°13'58.320" N	111°33'00.064" W

Annual Registration Fee [A.R.S. § 49-242]

The Annual Registration Fee for this permit is established by A.R.S. **§** 49-242(E) and is payable to ADEQ each year. The design flow is 4.0 million gallons per day.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. **§** 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is $22,500. The financial capability was demonstrated through R18-9 A203 (A) and (D)(1)(d).

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The Water Reclamation Plant shall be designed, constructed, operated, and maintained to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

The facility shall meet the requirements for pretreatment by conducting monitoring as per R18-9-B204(B)(6)(b)(iii):

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

2.2.1 Engineering Design

The WRP was designed as per the design report prepared by Terry Moore, P.E., Moore and Associates, Inc., dated September 26, 2003 and finalized by Gregory H. Brown, P.E., Sunbelt Utility Services, L.L.C.

2.2.2 Site-specific Characteristics

Site specific characteristics were not used to determine BADCT.

2.2.3 Pre-Operational Requirements

The permittee shall submit a signed, dated, and sealed Engineer's Certificate of Completion in a format approved by the Department per Compliance Schedule in Section 3.0.

2.2.4 Operational Requirements

1. The permittee shall maintain a copy of the new O & M manual at the WRP site at all times and shall be available upon request during inspections by ADEQ personnel.

2. The pollution control structures shall be inspected for the items listed in Section 4.0, Table III - FACILITY INSPECTION (OPERATIONAL MONITORING).

3. If any damage of the pollution control structures is identified during inspection, proper repair

procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance Section.

2.2.5 Wastewater Treatment Plant Classification
A.A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The WRP will produce reclaimed water meeting Class A+ Reclaimed Water Quality Standards and can be used for any allowable use in that class under a valid reclaimed water permit (A.A.C. R18-9, Article 7).

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

1. The permittee is authorized to operate the WRP with a maximum average annual flow of 4.0 MGD. Four tables are listed for discharge monitoring. These are Phase I, Table 1A, Phase II, Table 1A, Phase III, Table 1A and Phase IV, Table 1A. Phase I has been constricted and no monitoring is required for phase I. The facility shall only monitor the appropriate Table for monitoring that is commensurate with phases already constructed. Upon construction of each phase, the facility shall discontinue monitoring required in the previous phase(s). No monitoring is required for any phase that is not yet constructed.

2. The permittee shall notify all users that the materials authorized to be disposed of through the WRP are typical household sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.

3. The permittee shall operate and maintain all permitted facilities to prevent unauthorized discharges pursuant to A.R.S. § 49-201(12) resulting from failure or bypassing of BADCT pollutant control technologies including liner failure[5], uncontrollable leakage, overtopping (e.g., exceeding the maximum storage capacity, defined as a fluid level exceeding the crest elevation of a permitted impoundment), of basins, lagoons, impoundments or sludge drying beds, berm breaches, accidental spills, or other unauthorized discharges.

4. Specific discharge limitations are listed in Section 4.0, Table I.

2.4 Point of Compliance (P.O.C.) [A.R.S. § 49-244]

The Points of Compliance are established by the following designated locations:

P.O.C #	P.O.C. Locations	Latitude	Longitude
1	Northwest corner of the WRP- No well	33°13’50” N	111°33’46” W
2	MW-1 located downstream of AZPDES outfall for the subsurface recharge facility	33°13’49” N	111°33’42” W

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted

[5]Liner failure in a single-lined impoundment is any condition that would result in leakage exceeding 550 gallons per day per acre.

standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater according to Section 4.0, Table IA and IB. A representative sample of the wastewater shall be collected at the point of discharge from the effluent pump station.

2.5.1.1 Reclaimed Water Monitoring

The permittee shall monitor the parameters listed under Table 1B in addition to the routine discharge monitoring parameters listed in Table 1A.

2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.0, Table III.

a. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate this on the SMRF.

b. The permittee shall submit data required in Section 4.0, Table III regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.3 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.0, Table II.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self- Monitoring Report Form (SMRF).

2.5.4 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of

Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona State certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Ave.
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Groundwater Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements
[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Requirements

At least one copy of the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any alert level (AL) exceedance, or violation of an aquifer quality limit (AQL), discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.1.1. Specific Contingencies

a. The permittee shall inspect the facility for on-site fissures. Visual inspections shall be performed by personnel trained in identification of surficial features of earth fissures. Inspections shall be made of the buffer zone surrounding the wastewater recharge site to a distance of 300 feet from the recharge site, where practicable. Earth fissure monitoring is required monthly. If the surficial features that could indicate the presence of earth fissures are observed, the observations will be confirmed by a third party professional engineer or geologist. If the third party inspection confirms the possibility that the surficial features indicate a fissure, the features will be documented with sketches, maps and photographs as appropriate,

indicating the nature of the feature, dimensions, and orientation. Documentation will also include any incremental changes in a feature previously documented. All this information shall be submitted in a report to the ADEQ consisting of observations and interpretations and potential endangerment of pollutant contamination to the environment and public health.

b. In addition to the requirements stipulated in Section 2.6.2.1, If the performance levels under Table III for the observation wells is exceeded in Table III, the facility initiate following contingency action.

Item	Conditions	Action
1	Performance level exceeded in one or more effluent disposal lines of Phase I of the Recharge Facility.	Reduce flow to specific disposal line and/or reduce flow to Phase I and/or construct additional phase/s.
2	Performance level monitoring shows Phase I has reached disposal capacity with discharges to all six disposal lines.	Construct and operate additional phases II through IV.
3	Performance level shows all phases and disposal lines of the Recharge Facility are at capacity.	Obtain a significant amendment proposing to construct additional recharge lines to each phase and/or construct permitted vadose zone or direct injection wells.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions

1. If the operational PL set in Section 4.0, Table III has been exceeded (permit condition violated) the permittee shall:

   a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of an exceedance of any permit condition in Table III.

   b. Submit a written report within thirty (30) days after becoming aware of an exceedance of a permit condition. The report shall document all of the following:

      (1) A description of the exceedance and its cause;

      (2) the period of the exceedance, including exact date(s) and time(s), if known, and the anticipated time period during which the exceedance is expected to continue;

      (3) any action taken or planned to mitigate the effects of the exceedance or spill, or to eliminate or prevent recurrence of the exceedance or spill;

      (4) any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and

      (5) any malfunction or failure of pollution control devices or other equipment or process.

2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels (ALs) Set for Discharge Monitoring

1. If an AL set in Section 4.0, TABLE IA and IB have been exceeded, the permittee shall immediately investigate to determine the cause of the exceedance. The investigation shall include the following:

   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the exceedance.

   b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;

   c. Pretreatment source control for industrial pollutants.

2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.

3. Within thirty (30) days of an AL exceedance, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Enforcement Unit, along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.

4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.2.2.1. Exceeding Permit Flow Limit

1. If the AL for average monthly flow in Section 4.0, Table IA is exceeded, the permittee shall submit an application for an APP amendment to expand the WRP or submit a report detailing the reasons that an expansion is not necessary.

2. Acceptance of the report instead of an application for expansion requires ADEQ approval.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

1. If an AL for a pollutant set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within five (5) days of becoming aware of the exceedance. The permittee may use results of

another sample taken between the date of the last sampling event and the date of receiving the result as verification.

2. If verification sampling confirms the AL exceedance or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual', or 'Annual' respectively. In addition, the permittee shall immediately initiate an investigation of the cause of the AL exceedance, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.

3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL exceedance. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Groundwater Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Groundwater Section.

4. Within thirty (30) days after confirmation of an AL exceedance, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the exceedance, and actions taken to resolve the problem.

5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

6. The increased monitoring required as a result of an AL exceedance may be reduced to the monitoring frequency in Section 4.0, Table II if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants Without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.3 Discharge Limit (DL) Violations

1. If a DL set in Section 4.0, Tables IA and IB has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:

   a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;

b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;

c. Sampling of individual waste streams composing the wastewater for the parameters in violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. The permittee shall comply with the freeboard requirements as specified in Section 4.0, Table III (Facility Inspections) to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3 and the reporting requirements of Section 2.7.3.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions, or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

1. If an AQL set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL being exceeded. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.

2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and pursuant to A.R.S. § 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the discharged material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Field Service Unit at (602) 771-4841 within 24 hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL exceedance; or b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Field Services Unit at (602) 771-4841, within 24 hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL exceedance; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to the ADEQ Water Quality Field Services Unit, Mail Code 5415B-1, 1110 West Washington Street, Phoenix, Arizona, 85007, within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in the notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Section 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Groundwater Section prior to implementing a corrective action to accomplish any of the following goals in response to exceedance of an AL or violation of an AQL, DL, or other permit condition:

1. Control of the source of an unauthorized discharge;
2. Soil cleanup;
3. Cleanup of affected surface waters;
4. Cleanup of affected parts of the aquifer;

5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Forms (SMRF)

1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.

2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.

3. The tables contained in Section 4.0 list the parameters to be monitored and the frequency for reporting results for compliance monitoring. Monitoring and analytical methods shall be recorded on the SMRFs. The permittee reserves the right to request a relaxation of the monitoring frequency for metals and volatile organic compounds if the data indicate that water quality standards are being achieved.

4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms, or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

1. Name of inspector
2. Date and shift inspection was conducted
3. Condition of applicable facility components
4. Any damage or malfunction, and the date and time any repairs were performed
5. Documentation of sampling date and time
6. Any other information required by this permit to be entered in the log book

Monitoring records for each measurement shall comply with R18-9-A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five (5) days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation, or of an AL exceedance.

2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:

   a. Identification and description of the permit condition for which there has been a violation and a description of the cause;

   b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;

   c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation;

   d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard;

   e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring; and

   f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, Table III and submit to the ADEQ Water Quality Compliance Section quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

If the treatment facility is classified for reclaimed water under this permit, the permittee shall submit the reclaimed water monitoring results as required in Table IA and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

1. any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;

2. any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality
Water Quality Compliance Section, Data Unit
Mail Code: 5415B-1
1110 W. Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to the following address, **and** the applicable regional office:

Arizona Department of Environmental Quality
Water Quality Compliance Section, Enforcement Unit
Mail Code: 5415B-1
1110 W. Washington Street

Phoenix, Arizona 85007
Phone (602) 771-4614

All documents required by this permit to be submitted to the Groundwater Section shall be directed to:

Arizona Department of Environmental Quality
Groundwater Section
Mail Code: 5415B-3
1110 W. Washington Street
Phoenix, Arizona 85007
Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

Monitoring conducted during quarter:	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Groundwater Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person, or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

1. If applicable, direct the wastewater flows from the facility to another state-approved wastewater treatment facility.

2. Correct the problem that caused the temporary cessation of the facility.

3. Notify ADEQ with a monthly facility status report describing the activities conducted on the treatment facility to correct the problem.

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three (3) years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Groundwater Section, a Closure Plan which meets the requirements of A.R.S. • 49-252 and A.A.C. R18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Groundwater Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post Closure stated in this permit:

1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;

2. Further action is necessary to keep the facility in compliance with the Aquifer Water Quality Standards at the applicable point of compliance;

3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;

4. Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2;

5. Further action is necessary to meet property use restrictions.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Groundwater Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Groundwater Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49- 201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

A specific post-closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Groundwater Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Enforcement Unit.

Description	Deadline
STATUS REPORTS	
Submit a report by January 30 of the next year for the previous year indicating the actual flow through WRP for the last month of previous year and number of phases in operation by the end of that year. This report shall identify total flows through the WRP, total reuse capacity, and total recharge capacity. This report may also propose construction of additional WRP phases, subsurface recharge facility phases II, III and IV, if not already completed, vadose zone wells, or direct injection wells. This report shall be submitted yearly till all phases of the WRP, all phases of the subsurface recharge facility, all permitted vadose zone wells, and all permitted direct injection wells are constructed.	Annually by January 30th.
WASTEWATER RECLAMATION PLANT – PHASED CONSTRUCTION	
Notify ADEQ of the start-up and completion of construction of Phases 3 or 4 of the WRP.	Within 15 days of start up.
Submit an Engineer's Certificate of Completion for Phases 3 or 4 of the WRP.	Prior to commencing operation of Phases 3 or 4.
Notify ADEQ upon commencing operation of the completed Phase 3 or 4 of the WRP. The facility shall increase flows from 2.0 MGD to 3.0 or 4.0 MGD only upon the construction of additional treatment and disposal phases and only after notifying ADEQ by certified mail that additional treatment and disposal phases have been constructed.	Within 15 days of commencing operation.
Upon completion of all WRP phases the facility may request an "other" amendment to delete the monitoring Tables in section 4.0 that are no longer applicable.	Within 90 days of completion of construction of all WRP Phases.
POC MONITORING WELL	
Install monitoring well at MW-1, which is POC #2.	Within 30 days of issuance of the permit.
The permittee shall begin sampling groundwater for the parameters listed in Section 4.0, Table II.	Within 7 days after monitor well completion.
Submit a Well Installation Report to ADEQ for review. This report shall include the ADWR well completion records, drillers' logs, actual latitude and longitude, results of testing, and an "other" amendment request to establish AQLs, as applicable, in Table II or a proposed upgradient monitoring well location.	Within 30 days after receiving results of the initial sampling event at the POC #2.
UPGRADIENT MONITORING WELL	
If any AWQS are exceeded in the initial groundwater sample collected from POC #2, an upgradient well, outside of the zone of influence of the recharge should be installed to determine existing groundwater conditions.	Determination based on initial sample collected from POC #2.
If an upgradient groundwater monitoring well is required based on the initial groundwater quality sampling data from POC #2, the applicant shall propose a location and well design.	Within 30 days after receiving notification of the initial sampling event at the POC #2.
Install upgradient monitor well	Within 90 days after receipt of ADEQ's written approval of the well design and location from ADEQ.
Submit a Well Installation Report to ADEQ.	Within 30 days after monitor well completion.

Description	Deadline
The permittee shall begin conducting 8 monthly rounds of ambient groundwater quality sampling for the parameters listed in Section 4.0, Table II.	Within 30 days after monitor well completion.
The permittee shall submit an Ambient Groundwater Monitoring Report to the Water Permits Section. The permittee may propose ALs and AQLs based on statistical evaluation of all eight rounds of groundwater data collected.	Within one year after collection of ambient groundwater quality data.
POC LOCATIONS AND GROUNDWATER FLOW DIRECTION EVALUATION	
Assess groundwater flow conditions, recharge and groundwater monitoring to evaluate the adequacy of POC locations, identify data gaps, if any, and propose wells as needed to satisfy data gaps. Include an updated water level elevation map with the assessement based on data from wells located within one mile of the recharge facilities.	Annually
SUBSURFACE RECHARGE FACILITY	
Notify ADEQ of completion of construction of Phases I, II, III and/or IV of the disposal facility including the installation of BADCT Observation Ports.	Within 15 days of completion of each phase.
Test at least one ¼ mile leach disposal trench in Phase I to determine the recharge rate for a period of not less than 2 weeks.	Within 90 days of completion of Phase I.
Submit report to ADEQ documenting the results of testing and determination of the recharge rates and capacity. This report may propose construction of additional subsurface recharge facilities (Phases II through IV), if not already constructed.	Within 30 days after test completion.
VADOSE ZONE RECHARGE WELLS	
Notify ADEQ in writing of the installation and testing of each vadose zone recharge well.	Within 15 days of installation.
Submit a Well Installation Report to ADEQ for review. Include the well driller's logs and results of testing necessary to determine the available recharge rates and a map showing location of the well(s) installed, including the latitudes and longitudes for each well. The report will indicate if additional permitted vadose zone wells will be required.	Within 60 days after installation and completion of recharge testing.
Construct additional permitted vadose zone recharge wells.	When actual flows exceed 80% of existing well capacity or earlier based on Well Installation Report submitted above.
DIRECT AQUIFER INJECTION RECHARGE WELLS	
Notify ADEQ in writing of the installation and testing of each direct aquifer injection recharge well.	Within 15 days of installation.
Submit a Well Installation Report to ADEQ for review. Include the well driller's logs and results of testing necessary to determine the available recharge rates and a map showing location of the well(s) installed, including the latitudes and longitudes for each well. The report will indicate if additional permitted direct aquifer injection recharge wells will be required.	Within 60 days after installation and completion of recharge testing.
Construct additional permitted direct aquifer injection recharge wells.	When actual flows exceed 80% of existing well capacity or earlier based on Well Installation Report submitted above.

4.0 TABLES OF MONITORING REQUIREMENTS

PHASE I (for flows 1.0 MGD or less)
TABLE IA
ROUTINE DISCHARGE MONITORING[6]

NOTE: As Phase has been constructed monitoring under this Table is not required.

Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
1	Effluent Pump Station			33° 13' 43" N	111° 33' 46" W
Parameter	**AL[7]**	**DL[8]**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow: Daily[9]	Not Established[10]	Not Established	MGD[11]	Daily[12]	Quarterly
Total Flow: Average Monthly	0.95	1.0	MGD	Monthly[13]	Quarterly
Fecal Coliform: Single sample maximum	Not established	23	CFU or MPN[14]	Daily[15]	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[16]	Not established	Non-detect[17]	CFU or MPN	Daily	Quarterly
Total Nitrogen[18]: 5-sample rolling geometric mean	8.0	10.0	mg/l	Monthly[19]	Quarterly

[6] The permittee shall initiate monitoring under this table (Table IA) upon ceasing vault and haul during the initial start-up period. (see Table IA-I)
[7] AL = Alert Level
[8] DL = Discharge Limit
[9] Total flow is measured in million gallons per day (MGD).
[10] Not established = Monitoring required but no limits have been specified at time of permit issuance.
[11] MGD = Million Gallons per Day
[12] Flow shall be measured using a continuous recording flow meter which totals the flow daily.
[13] Monthly = Monthly average of daily flow values (calculated value)
[14] CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.
[15] **Daily** means at least four (4) samples per week must be analyzed.
[16] **Week** means a seven-day period starting on Sunday and ending on the following Saturday.
[17] If at least four (4) of the daily samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).
[18] Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen
[19] A 5-Month Geometric Mean of the results of the 5 most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE IA - ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) [20]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[20] Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

PHASE II (for flows 2.0 MGD or less)

TABLE IA
ROUTINE DISCHARGE MONITORING

Sampling Point Number	**Sampling Point Identification**			**Latitude**	**Longitude**
1	Effluent Pump Station			33° 13' 43" N	111° 33' 46" W
Parameter	**AL**[21]	**DL**[22]	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow: Daily[23]	Not Established[24]	Not Established	MGD[25]	Daily[26]	Quarterly
Total Flow: Average Monthly	1.90	2.0	MGD	Monthly[27]	Quarterly
Fecal Coliform: Single sample maximum	Not established	23	CFU or MPN[28]	Daily[29]	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[30]	Not established	Non-detect[31]	CFU or MPN	Daily	Quarterly
Total Nitrogen[32]: 5-sample rolling geometric mean	8.0	10.0	mg/l	Monthly[33]	Quarterly

[21]AL = Alert Level
[22]DL = Discharge Limit
[23]Total flow is measured in million gallons per day (MGD).
[24]Not established = Monitoring required but no limits have been specified at time of permit issuance.
[25]MGD = Million Gallons per Day
[26]Flow shall be measured using a continuous recording flow meter which totals the flow daily.
[27]Monthly = Monthly average of daily flow values (calculated value)
[28]CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.
[29]**Daily** means at least four (4) samples per week must be analyzed.
[30]**Week** means a seven-day period starting on Sunday and ending on the following Saturday.
[31]If at least four (4) of the daily samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).
[32]Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen
[33]A 5-Month Geometric Mean of the results of the 5 most recent samples

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[34]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[34] Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

PHASE III - Flows 3.0 MGD or less
TABLE 1A
ROUTINE DISCHARGE MONITORING

Sampling Point Number	**Sampling Point Identification**		**Latitude**		**Longitude**
1	Effluent pump station		33° 13' 43" N		111° 33' 46" W
Parameter	**AL**[35]	**DL**[36]	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow: Daily[37]	Not Established[38]	Not Established	MGD[39]	Daily[40]	Quarterly
Total Flow: Average Monthly	2.85	3.0	MGD	Monthly [41]	Quarterly

Sampling Point Number	**Sampling Point Identification**		**Latitude**		**Longitude**
1	Effluent pump station		33° 13' 43" N		111° 33' 46" W
Parameter	**AL**	**DL**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Fecal Coliform Single sample maximum	Not established	23	CFU or MPN[42]	Daily[43]	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[44]	Not established	2.2	CFU or MPN	Daily	Quarterly
Total Nitrogen[45]: 5-sampling rolling geometric mean	8.0	10.0	mg/l	Monthly[46]	Quarterly

[35]AL = Alert Level.
[36]DL = Discharge Limit.
[37]Total flow is measured in million gallons per day (MGD)
[38]Reserved = Monitoring required but no limits have been specified at time of permit issuance.
[39]MGD = Million Gallons per Day.
[40]Flow shall be measured using a continuous recording flow meter which totals the flow daily.
[41]Monthly = Calculated value = Average of daily flows in a month.
[42]CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample
[43]**Daily** means at least four (4) samples per week must be analyzed.
[44]**Week** means a seven-day period starting on Sunday and ending on the following Saturday.
[45]Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.
[46]A 5-Month Geometric Mean of the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (As free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[47]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[47]Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

PHASE IV (For Flows 4.0 MGD or less)

TABLE 1A
ROUTINE DISCHARGE MONITORING

Sampling Point Number	**Sampling Point Identification**		**Latitude**		**Longitude**
1	Effluent pump station		33° 13' 43" N		111° 33' 46" W
Parameter	**AL**[48]	**DL**[49]	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Flow: Daily[50]	Not Established[51]	Not Established	MGD[52]	Daily[53]	Quarterly
Total Flow: Average Monthly	3.8	4.0	MGD	Monthly[54]	Quarterly

Sampling Point Number	**Sampling Point Identification**		**Latitude**		**Longitude**
1	Effluent pump station		33° 13' 43" N		111° 33' 46" W
Parameter	**AL**	**DL**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Fecal Coliform Single sample maximum	Not Established	23	CFU or MPN[55]	Daily[56]	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week[57]	Not Established	Non-detect[58]	CFU or MPN	Daily	Quarterly
Total Nitrogen[59]: 5-sampling rolling geometric mean.	8.0	10.0	mg/l	Monthly[60]	Quarterly

[48]AL = Alert Level.
[49]DL = Discharge Limit.
[50]Total flow is measured in million gallons per day (MGD)
[51]Reserved = Monitoring required but no limits have been specified at time of permit issuance.
[52]MGD = Million Gallons per Day.
[53]Flow shall be measured using a continuous recording flow meter which totals the flow daily.
[54]Monthly = Calculated value = Average of daily flows in a month.
[55]CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample
[56]**Daily** means at least four (4) samples per week must be analyzed.
[57]**Week** means a seven-day period starting on Sunday and ending on the following Saturday.
[58]If at least four (4) of the daily samples analyzed per week are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).
[59]Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.
[60]A 5-Month Geometric Mean of the results of the 5 most recent samples.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1A
ROUTINE DISCHARGE MONITORING (continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) [61]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[61]Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE 1B

RECLAIMED WATER MONITORING TABLE - CLASS A+[62]

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Effluent Pump Station		33° 13' 43" N	111° 33' 46" W
Parameter	**DL**	**Units**	**Sampling Frequency**	**Reporting Frequency**
Flow: Daily	Reserved	MGD[63]	Everyday[64]	Quarterly
Flow: Total monthly flow provided for reuse	Reserved	MGD	Monthly Calculation	Quarterly
Total Nitrogen[65]: Five-sample rolling geometric mean	10.0	mg/l	Monthly	Quarterly
Fecal Coliform: Single-sample maximum	23	CFU or MPN[66]	Daily[67]	Quarterly
Fecal Coliform: Four (4) of last seven (7) samples	Non-detect[68]	CFU or MPN	Daily	Quarterly
Turbidity[69]: Single reading	5.0	NTU[70]	Everyday[71]	Quarterly
Turbidity: 24-hour average	2.0	NTU	Everyday	Quarterly

[62] Reclaimed water monitoring is in addition to routine discharge monitoring.
[63] Million Gallons per Day
[64] Flow rate shall be measured using a continuously recording flow meter which totals the flow daily.
[65] Nitrate N, plus Nitrite N, plus Total Kjeldahl Nitrogen (TKN)
[66] CFU = Colony Forming Units per 100 ml: MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.
[67] For fecal coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.
[68] If at least four (4) of the last seven (7) samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the last seven (7) samples have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).
[69] Turbidimeter shall have a signal averaging time not exceeding 120 seconds. Occasional spikes due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.
[70] Nephelometric Turbidity Units
[71] For the single turbidity reading, "everyday" means the maximum reading during the 24-hour period.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING

Sampling Point Number	**Sampling Point Identification**		**Latitude**		**Longitude**
2	MW #1		33° 13' 51" N		111° 33' 46" W
Parameter	**AL**[72]	**AQL**[73]	**Units**	**Sampling Frequency**	**Reporting Frequency**
Total Nitrogen[74]:	Not Established[75]	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence[76]	CFU or MPN[77]	Monthly	Quarterly
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (as free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

[72] AL = Alert Level
[73] AQL = Aquifer Quality Limit
[74] Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.
[75] Not Established = Monitoring required, but no limits have been established at this time.
[76] A positive result for total coliform may be verified with an analysis for fecal coliform. A positive result for fecal coliform shall be considered an exceedance of the AQL for total coliform.
[77] CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

4.0 TABLES OF MONITORING REQUIREMENTS

TABLE II
GROUNDWATER MONITORING (continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Volatile Organic Compounds (VOCs):					
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Hexachlorobenzene	0.0008	0.001	mg/l	Semi-Annually	Semi-Annually
Hexachlorocyclopentadiene	0.04	0.05	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total)[78]	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

[78]Total Trihalomethanes are comprised of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE III
FACILITY INSPECTION (Operational Monitoring)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good working condition	Weekly
Treatment Plant Components	Good working condition	Weekly
Effects of Land Subsidence and Earth Fissures on Treatment Plant Components, Sludge Drying Beds, Effluent Holding Ponds and Disposal Sites	Not to exceed a leakage rate of 550 gpd/acre	Monthly
Water elevation in subsurface disposal facility observation wells, except during flooding of wash. List of observation wells is shown below	Less than top of recharge trench or 12" above the perforated recharge pipe.	Daily
During flooding of Queen Creek wash	Identify periods of flooding and sources of "flooding".	Daily

Sampling Point Number	Descriptive Location	Latitude	Longitude
3	BADCT Observation Well 1A	33°13'54.546 N	111°33'38.835" W
4	BADCT Observation Well 1B	33°13'54.348 N	111°33'38.821" W
5	BADCT Observation Well 1C	33°13'54.151 N	111°33'38.806" W
6	BADCT Observation Well 1D	33°13'53.953 N	111°33'38.792" W
7	BADCT Observation Well 1E	33°13'53.756 N	111°33'38.777" W
8	BADCT Observation Well 1F	33°13'53.558 N	111°33'38.763" W
9	BADCT Observation Well 2	33°13'55.232 N	111°33'25.831" W
10	BADCT Observation Well 3	33°13'56.578 N	111°33'12.916" W
11	BADCT Observation Well 4	33°13'58.320 N	111°33'00.064" W

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1.	APP Application dated:	12/11/2003 (orig. APP), 11/29/2004 (sig. amend.), 9/26/05 (sig. amend)
2.	Contingency Plan, dated:	12/11/2003
3.	Final Hydrologist Report dated:	6/21/2004 (orig. APP), 4/27/05 (sig. amend), 7/25/2007 (sig. amend)
4.	Final Engineering Report dated:	11/16/2004 (orig. APP), 4/26/05 (sig. amend.)
5.	Public Notice dated:	4/7/04 (orig. APP), 4/30/05 (sig. amend), ?????????? (sig. amend)
6.	Public Hearing, dated:	N/A
7.	Responsiveness Summary, dated:	N/A

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D).

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an Aquifer Water Quality Standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an Aquifer Water Quality Standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

1. the filing of bankruptcy by the permittee;

2. the entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. **§§** 49-221 and 49-223 and **§§** 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-1009, 49-203(B), and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension, and Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, suspended, or revoked for cause, under the rules of the Department. The permittee shall notify the Groundwater Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).